

## 1-8. (CANCELED)

9. (CURRENTLY AMENDED) A method for optimizing a kick-down upshift point speed in a motor vehicle with an automatic transmission, comprising

~~determining each kick-down upswitch point as a function of at least one of a load condition and a road inclination as represented by a gradient of one of an engine output speed and a transmission output speed~~

determining an engine output speed gradient at a kick-down upshift point wherein the engine output speed gradient reflects a road inclination;

determining for the engine output speed gradient a speed offset representative of a time interval required for the engine output speed to reach a maximum engine output speed; and

applying the speed offset as an adjustment to the upshift point speed.

10. (PREVIOUSLY PRESENTED) The method according to claim 9, comprising adding a speed offset of appropriate sign (nd\_abkd) to the current upshift point as a function of an output speed gradient (ng\_ab) when a kick-down condition is recognized by a transmission control system of the transmission.

11. (PREVIOUSLY PRESENTED) The method according to claim 10, comprising storing the variation of the speed offset of appropriate sign (nd\_abkd) in a transmission control system in the form of a characteristic line a separate characteristic line being stored for each upshift.

12. (CANCELED)

13. (CURRENTLY AMENDED) The method according to claim 10, comprising determining a target gear for the next ~~upswitch~~ upshift when a kick-down condition is recognized and determining the transmission output speed gradient (ng\_ab) and then calculating the speed offset (nd\_abkd), [[the]] delay times for individual gear changes being stored for application with temperature-dependent delay times being taken into account.

14. (PREVIOUSLY PRESENTED) The method according to claim 10, comprising calculating the value of the speed offset (nd\_abkd) and then recalculating this value as a function of an existing driver behavior, whereby an upshift speed (n\_abkd) is adapted to a driver's way of driving.

15. (PREVIOUSLY PRESENTED) A method for kick-down upshift speed optimization in a motor vehicle with an automatic transmission, comprising:

determining each kick-down upshift point as a function of an acceleration determined by a load condition and road inclination,

adding a speed offset of appropriate sign (nd\_abkd) to the current upshift point as a function of an output speed gradient (ng\_ab) when a kick-down condition is recognized by a transmission control system of the transmission, by

calculating a first value of the speed offset (nd\_abkd),

recalculating the first value of the speed offset (nd\_abkd) as an intermediate value of the speed offset as a function of an existing driver behavior, whereby an upshift speed (n\_abkd) is adapted to a driver's way of driving, and

again recalculating the intermediate value of the speed offset (nd\_abkd) as a final value of the speed offset as a function of driver activity by multiplying a characteristic line of the speed offset values (nd\_abkd) by a factor that depends on driver behavior.

16. (PREVIOUSLY PRESENTED) The method according to claim 14, comprising determining the value of the speed offset (nd\_abkd) as a function of driver activity by establishing characteristic lines of the speed offset values for each characteristic type of driver, intermediate values being determined by averaging between the driver types.

17. (CURRENTLY AMENDED) A method for a kick-down upshift speed optimization in a motor vehicle with an automatic transmission as a function of road inclination, comprising the steps of:

determining at a kick-down point an output speed gradient (ng-ab) reflecting a road inclination;

determining a speed offset (nd-abkd) dependent upon the output speed gradient (ng-ab) and representative of a time interval required for the engine output speed to reach a maximum engine output speed: [[,]] and

applying the speed offset (nd-abkd) as an adjustment to the upshift point speed such that the engine will reach a maximum engine output speed at an upshift point.

18. (PREVIOUSLY PRESENTED) The method of claim 17, further comprising the step of further determining the output speed gradient ( $ng_{0ab}$ ) and the speed offset ( $nd-abkd$ ) based upon a vehicle load condition which is derived from one of a corresponding curve and value stored in a transmission control system.

19. (PREVIOUSLY PRESENTED) A method for kick-down upshift speed optimization in a motor vehicle with an automatic transmission as a function of road inclination, comprising the steps of:

determining an output speed gradient ( $ng-ab$ ) reflecting a road inclination,  
determining a speed offset ( $nd-abkd$ ), dependent upon the output speed gradient ( $ng-ab$ ), such that an engine will reach a maximum engine output speed at an upshift point, and

altering the upshift speed according to the speed offset ( $nd-abkd$ ) so that the upshift occurs at a time the engine output speed reaches the maximum engine output speed.

20. (PREVIOUSLY PRESENTED) The method of claim 19, further comprising the step of further determining the output speed gradient ( $ng-ab$ ) and the speed offset ( $nd-abkd$ ) based upon a vehicle load condition which is derived from one of a corresponding curve and value stored in a transmission control system.

21. (NEW) A method for optimizing a kick-down upshift point speed in a motor vehicle with an automatic transmission, comprising

determining upshift speed offsets as represented by an engine speed gradient as functions of at least one of a road inclination and a load condition,

storing the upshift speed offsets as an absolute kick-down shifting characteristic line, determining an engine output speed gradient at a kick-down upshift point,

determining from the absolute kick-down shifting characteristic line and for the engine output speed gradient a speed offset representative of a time interval required for the engine output speed to reach a maximum engine output speed, and

applying the speed offset as an adjustment to the upshift point speed.